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ORIGINAL ARTICLES.

FURTHER NOTES ON THE USE OF PROTARGOL IN OPHTHALMIC PRACTICE.

By ADOLF ALT, M.D.,

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IN THE January, 1898, number of this Journal, I took occasion to direct the attention of my American confrères to the new silver salt, protargol, introduced by Neisser. I think that this was the first mention this salt had received in American literature. It seems still to be little appreciated in this country, while in Europe it has been used and experimented with more freely, and a number of papers have been published concerning it. Strange to say, the verdicts regarding its usefulness are by no means uniform. While some writers praise it to the sky, others are barely willing to allow it a place in our therapeutic armamentarium and consider it greatly inferior to the nitrate of silver.

I have been using it daily in my practice since I first obtained it in November, 1897, and I can not see why it should be discarded or even used sporadically only. Maybe that these notes will bring it more successfully to the notice of the profession.

The great advantage it has over the nitrate of silver by virtue of its causing but little, if any, pain, and by its penetrating deeper into the tissues than the former salt, should in itself prove sufficient to recommend it.

In catarrhal conjunctivitis it has answered me every bit as well as the nitrate of silver, particularly in the many acute forms. It did not matter much what germ was in the given case the originator of the trouble, the influence of a 2 or 3 per cent. solution of protargol applied freely has never failed me in as speedily reducing the inflammation as does the nitrate of silver. Indeed, in many cases, I think, it worked quicker. This may in part be due to the fact that I use it lavishly and not sparingly as the painful nitrate of silver. Time and again I have by the daily bacteriological examination of the secretion been able to see its direct inhibiting and destroying action on the various micro-organisms. Some of the writers on this subject use protargol in from 10 to 50 per cent. solutions only. I have experimented with such strong solutions, but, besides causing considerable pain and discomfort, I have not found any definite benefit from them. The solution which I mostly use is of 3 per cent., while I have been perfectly satisfied with a 2, or even 1 per cent. solution in many milder cases.

Even in gonorrhœal conjunctivitis of the newborn I have used it in this strength with perfect satisfaction. In such cases, besides applying it myself daily with cotton or a brush, as I would a solution of nitrate of silver, I have given a solution of protargol to the nurse and had this instilled freely every few hours, according to the severity of the case. I have used it in such a manner in a number of cases without any other adjunct, except cool applications and careful cleansing of the conjunctival sac. The cases have done well and the duration of the disease was surely no longer than with the nitrate of silver and antiseptic washes, in parallel cases. In gonorrhœal conjunctivitis of the adult my experience was the same, and the amount of pain the patient is saved from by the use of this silver salt in this particularly painful disease is surely very great.

A number of authors have taken especial pains to state that in trachoma they found protargol to be of no use what-

ever. My sxperience does not coincide with theirs. To be sure, I have also seen no very marked influence exerted by protargol on the granulations themselves, when they were any ways well developed or very numerous. In early stages, however, I think, protargol is as useful as any other remedy and equal to bichloride of mercury, which I have formerly been using. The beneficial action of protargol is, however, especially noticeable after the squeezing out of the granulations, that is, when we have to deal with the catarrhal condition left behind.

It has been claimed that protargol is not likely to cause argyrosis of the conjunctiva. This is not so. About a year ago Denig showed a case of argyrosis caused by the application of protargol for several months, at the Academy of Medicine in New York. I have also seen a number of cases of argyrosis from this remedy, in patients with trachoma, after several months of treatment. The argyrosis in these cases, however, was not like that caused by nitrate of silver. The conjunctiva, instead of showing the dirty-grayish, or even blue-black appearance which we all know so well, had only a light yellowish-brown tint. While I do not know what was the ultimate outcome of the argyrosis in most of these patients, I know that in three or four cases when I saw them again some three months after I had first noticed the argyrosis, it had disappeared. In one case, I know positively that it had remained unchanged for about a year, yet it is by no means as noticeable and disfiguring as the argyrosis from nitrate of silver.

I am glad to see from an article in the *Berliner Medizinische Wochenschrift*, January 1, 1900, by Dr. P. Schultz, that in a recent epidemic of acute trachoma in Berlin, which was successfuly traced to a public bath, this author has found protargol of great usefulness.

In dakryocystitis I have injected it into the lachrymal sac and its action was certainly very beneficial.

Dr. B. E. Fryer, of Kansas City, Mo. (see this Journal, April, 1898) makes use of protargol preliminary to cataract extraction, and he looks upon it as an excellent disinfectant, in which, from what I have above stated, I can fully concur with him.

Lately I have applied protargol in a case of very obstinate phlyctænular conjunctivitis, being brought to try it by the fact that all the generally adopted methods of treatment proved of no avail. The case showed an immediate improvement and is now nearly well, and I shall try it again in similar cases when other therapeutic measures have failed.

I am of the opinion, after having used this silver salt in my daily practice for over two years, that it is a most useful agent and can in most cases take the place of nitrate of silver as it acts as surely and promptly as this salt, and causes no pain to speak of, except in a few patients who are so sensitive that everything hurts them.

Whether largin, a recently-introduced rival, will really prove to act even better than protargol, the future will tell. Personally, I have not yet used it.

PERSONAL RECOLLECTIONS OF EARLY CATARACT EXTRACTIONS.

By S. POLLAK, M.D.,

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THE January number of the AMERICAN JOURNAL OF OPHTHALMOLOGY contains in part the inaugural address of Mr. G. Anderson Critchett, as President of the Ophthalmological Society of the United Kingdom, which abounds in errors concerning some persons and in anachronisms, demanding correction.

His subject is the evolution of cataract extraction since Daviel's first attempt in 1745. Prior to that time couching and discission were the only recognized operations and they remained in vogue a long time after Daviel's death.

In the first quarter of the present century Prof. Joseph Beer, of Vienna, devised his triangular or rhomboid knife with which he extracted cataractous lenses. He effected a revolution in ophthalmic surgery which was recognized and accepted as the best for many decades. His flap operation, in skilled hands, had generally excellent results. Couching

and discission became the operations of the past. The writer witnessed Beer's extractions many times during his medical college years in 1832-35.

In 1840 Dr. A. von Graefe became a student of Beer, and on his return to Berlin he followed the instructions of his revered friend and teacher for many years.

Late in the 50's von Graefe designed the well-known narrow-bladed cataract knife and changed the flap operation into the linear one combined with iridectomy. Professor Schuft—now Waldow—Graefe's *alter ego*, made the corneal incision with the keratotoma courbé, iridectomized, and then introduced spoons, varying in size, with which he scooped out the lens. These spoons were clumsy and unsuitable instruments and they were soon laid aside. The linear extraction with iridectomy was, and perhaps is yet, the most prevalent in all countries, except in France, where German ideas have few followers.

The triangular knife of Beer, which had been superceded so long by Graefe's narrow-bladed one, has been brought out again, and is now used in preference by many distinguished ophthalmic surgeons. They found that a smooth, straight cut is better adapted to union by first intention than an irregular one as that made by the to-and-fro motion with the other knife.

The brilliant surgery of the late and glorious George Critchett was witnessed by me in the unrivaled clinic at Moorfields, where the galaxy of immortals such as Bowman, Critchett, Hutchinson, Hulke, Bader, and Streatfield dwelt, who in 1860 followed strictly the von Graefe system in all its phases. They would scorn the idea, that the narrow knife was brought out by them or by Pagenstecher.

It was an interesting and refreshing sight to see the talented and ever-jovial Mr. Critchett recite Shakespeare or some other poetry while performing an operation; he almost invariably succeeded in diverting the patient's attention from the surgical work as if casting a charm over him by the beautiful recitations.

It is not true that the flap or linear operation were first practiced at Moorfields in 1864. The famous clinic at Moorfields does not need, nor claims, the honor of being the native

home of cataract extraction. It is to Joseph Beer in Vienna, and to von Graefe that this credit is due.

Let honor be bestowed on those to whom it justly belongs.

SOME CLINICAL EXPERIENCES.

By ADOLF ALT, M.D.,

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ANOTHER CASE OF EPITHELIOMA OF THE CORNEO-SCLERAL REGION CURED BY GALVANO-CAUTERY.

IN the June number, 1893, of this JOURNAL, I reported a case of recurrent epithelioma which I had finally succeeded in eradicating by galvano-cautery. When reported, the cure had remained psrmanent for three years. It is now almost ten years, and no recurrence has taken place, which fact is the more gratifying, as the epithelioma grew on the patient's only eye, the other having been previously removed be me.

I have now a second and very similar case to report:

On December 6, 1898, H. W. Baker, 47 years of age, called on me on account of a small tumor which his wife had observed growing for several months on the nasal side of his left eye. Of late it had become painful, which was the immediate cause for his seeking medical aid.

I found a small flat triangular fold of very hyperæmic conjunctival tissue drawn from the inner canthus towards the corneo-scleral margin and slightly encroaching upon the cornea in the horizontal meridian. Its apex on the cornea was slightly raised, and, viewed with a magnifying lens, it appeared rough and very vascular. The conjunctival fold was stretched very tensely, so that no probe could be introduced beneath it.

These peculiarities aroused the suspicion in me that I might have to deal with an incipient epithelioma and not with a small pterygium, although the general appearance was almost exactly that of such a benign tumor.

The patient, although an intelligent business man, could

furnish no detailed history of the manner in which the growth had developed. There was no family history of similar tumors. He made, however, one statement which, I think, is important. He said, that he had been smoking a short pipe since his youth and had always held it been his teeth on the left side, although many times a day, while he was working at his desk, the hot smoke from this pipe would get into the eye and burn him severely. Very probably this continued injury has to be looked upon as an etiological factor in this case.

I proposed the immediate removal with the knife in order to examine the specimen histologically. In doing so, I told the patient that a relapse might occur, although I tried, of course, to operate in healthy tissue altogether. He at once submitted to the operation, which was followed by an astonishing amount of bleeding from the enlarged conjunctival blood-vessels. The healing was prompt and uninterrupted.

The specimen gave undoubted evidences of an epitheliomatous growth. The epithelium was three or four times the normal thickness and sent numerous pegs into the underlying tissue, which were surrounded by round-cell infiltration. Pearl nodules, too, were not wanting. I informed the patient of this and asked him to report soon again for examination.

This he did not do until on February 20, 1898, two and a half months after the excision. I now found a small, wart-like flat tumor riding on the corneo-scleral margin, rough and vascular on the surface. Several broad conjunctival blood-vessels ran towards this tumor from the region of the semi-lunar fold. Below this larger tumor, totally separate from it and from each other, midway between the horizontal and vertical meridians in the inner lower quadrant of the cornea, but near its margin, two minute whitish tumors had made their appearance. They looked almost like phlyctænulæ.

I now proposed the destruction of these three tumors by means of galvano-cautery. The patient consented and I immediately proceeded to do it. I burned especially deep in the conjunctival part of the largsr tumor with the intention of obliterating all the blood-vessels which had nourished the tumor; in its corneal part, also, I went as deep as I thought was prudent. The somewhat extensive burn healed nicely.

The two minute tumors in the cornea have not reappeared since this cauterization.

A month later, several weeks after I had discharged him, I saw the patient again. The eye looked very well and the patient was well pleased, yet, I was not quite satisfied with the result. The locality where the conjunctival part of the tumor had been situated was not as flat as I thought it should be. There, too, were again a few larger blood-vessels entering this scar-tissue. Although the patient did not like to submit to it, I again cauterized this part and its immediate surroundings on March 23d.

When I discharged the patient I enjoined on him most urgently to return from time to time for my inspection, even if he did not see any reason for it. He has done so a number of times and up to date no further sign of recurrence has shown itself. The scar is flat and pale, and while it is not quite a year since the last cauterization, still I am inclined to think that in this case, too, I succeeded in eradicating the disease and thus to save an eye.

TWO CASES IN WHICH SUCCESSFUL CATARACT EXTRACTIONS WERE FOLLOWED BY THE LOSS OF THE UNOPERATED EYE.

THE two following cases seem to be worthy of record:

On November 6, 1889, I extracted a very hard, ripe and brownish cataract from the right eye of Mrs. K. H., a Jewess, 71 years of age. She had a very small palpebral fissure, so small that I could hardly put the speculum into place. The eyes were both microphthalmic. There was an immature cataract in the left eye which still permitted of an examination of the fundus, which appeared normal. In spite of a good-sized irridectomy it was quite difficult to remove the large nucleus, and I was finally forced to enter the eye with a spoon in order to succeed. Healing progrressed uninterruptedly until the sixteenth day ofter the operation, when I was hurriedly sent for because the old lady had had an attack of very severe pain in both eyes, which was said to have lasted from the preceding evening on all through the night and to have rendered her totally blind, even in the unoperated eye.

When I saw the patient the pain had abated. The left eyeball was deeply congested and tortuous veins were seen all around the corneal periphery. The cornea was steamy and the pupil large. There was not the slightest light-perception in this eye. + T 3.

The right eye, the one I had operated upon, was much less injected, the media were dim, and on careful digital examination the tension was found to be above the norm. She had now light-perception in this eye.

As I had evidently to deal with a case of fudroyant glaucoma I at once instilled eserine. This gave relief, but vision did not rise, and the patient, dispairing of ever seeing again and blaiming me for this not to forseen complication, promptly discharged me.

Some four weeks later, to my astonishment, she was brought again to my offices. The eserine had been used all this time and she could again see with the eye I had operated on. Her confidence had then, in a manner, been restored, and she wanted some glasses. She could now count fingers at 5 feet, and with a + 16 D. lens at 15 feet. Further improvement was impossible. The field was small and horizontally oval. An ophthalmoscopic examination was not permitted for fear of a new attack. The operated eye was about normal in tension, the left one, however, still showed + T 1, and was totally blind.

Three years later a neighbor of hers was sent by her to me to have her cataracts extracted, and I saw the old lady then. She was working a little around the house and very grateful for what vision she had.

It is, of course, hard to explain why this attack of glaucoma should have come on just when it did. Maybe the atropine instillations had something to do with it, although none, to my knowledge, had been made in the left eye since my examination before the operation. At any rate it was, perhaps, very lucky that I had made an iridectomy in the right eye and that the lens had been removed just when it was. This was probably what saved this eye from the utter ruin which befell the unoperated fellow-eye.

On May 5, 1896, Dr. G. L. S., 45 years of age, consulted me because he had noticed a decided failure of vision for about three months, especially in the right eye. I found myopia of 13 D. in the right and of 20 D. in the left eye; a beginning nuclear cataract in the right eye, and large choroidal atrophic patches in the region of the posterior pole in both eyes.

As the right cataract progressed and the left eye also began to develop a cataract the patient became more and more impatient, the more so since the loss of vision interfered with his practice, and he had a large family to take care of. However, I did not consent to an attempt at extracting the unripe right cataract until the left cataract should render him unfit for work. Finally, on May 21, 1899, he returned and begged of me to operate on his right eye as he was unable to earn a living, because the people of his village, being aware of his poor vision, distrusted him. He still counted fingers with this eye at 5 feet, and the periphery of the lens was so clear that when his pupil was dilated his vision was very greatly improved. As he formally refused to wait any longer, I made a small discission of the anterior capsule which rendered the anterior cortex dim in a few days. On June 1st, I removed this lens by simple extraction without the least difficulty. Healing was uneventful. Six weeks afterwards I needled the posterior lens capsule. His vision was then $^{20}/_{XL}$ with $+2,5$ D. $\bigcirc +1$ D. cyl. ax. 5°, and he read Sn. 1 easily with $+4$ D. $\bigcirc +1$ D. cyl. ax. 5°.

On September 8th, I saw the patient again, when he informed me that his left (unoperated) eye had, 3 weeks previously, suddenly become blind. I found — T. 1, doubtful light perception and detachment of the retina. As his right eye was, however, in consequence of the extraction fully able to do his work, he did not feel the loss of the left eye as much as he might have. In fact his Christmas letter to me breathes nothing but happiness.

MONOCULAR HEMIANOPSIA WITH HALLUCINATIONS OF SMELL. A CONTRIBUTION TO OUR KNOWLEDGE OF THE OPTICAL NERVE PATHS.*

By MAX LINDE, M.D.,

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THE course of the optical nerve-fibres has in the last decades been cleared up by the works of Gudden, Munk, Henschen, Monakow, Vialet, and others to such an extent that we can well say that we do not know equally as much concerning many of the other nerve tracts.

The optical fibres may be divided into two parts, viz.: an anterior one going from the retina to the external corpus geniculatum, *respective* the pulvinar and gray matter of the anterior corpus bigeminum, and in a posterior one passing from the corpus geniculatum to the cortex of the occipital lobe.

The first or frontal (primary) fibres are the optical conductors for the reflexes and for the visual act, the second or posterior ones are for the visual act alone.

It is certain that the external corpus geniculatum is the most important primary center in which, according to Henschen and Wilbrandt, the optic nerve-fibres are situated dorsally and ventrally in correspondence with the retina. What rôle the pulvinar plays in the visual act is, as yet, not clear. In the corpus geniculatum a switching off of all fibres takes place. The optical fibres go laterally from the external corpus geniculatum into the marrow (lateral marrow of the corpus geniculatum externum of Monakow), take up fibres from the pulvinar and the anterior corpus bigeminum and pass over into Gratiolet's optical fibre-radiation which runs sagitally backwards in the lower segment of the occipital lobe and ends finally in the neighborhood of the fissura calcarina and the cuneus on the median surface of the occipital lobe.

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*Translated by ADOLF ALT, M.D., St. Louis, Mo., from "Monatschrift für Psychiatrie und Neurologie," January, 1900.

On account of the peculiar semi-decussation in the chiasm, affections in the optical course behind the chiasm must of necessity produce homogeneous hemianopsia. More than two hundred such cases with post-mortem findings have been collected and laid down in literature by Henschen and Vialet. Cutting the chiasm in two produces bi-nasal or bi-temporal hemianopsia (the latter was given the characteristic name "Scheulederkrankheit" [horse blinds disease] by Hirschberg). In diseases of the chiasm, therefore, the hemianopsia is heteronymous, in diseases of the tract homonymous. These two forms of hemianopsia are not so very rarely seen, even if they are not all uniform (the remaining intact of the point of fixation will be spoken of later on), so that sometimes peculiar outlines, even so-called quadrant-like hemianopsias have been observed. Yet, as far as I know, as yet no case of monocular hemianopsia due to a cerebral tumor with post-mortem has been published.[1]

The following case, observed by me, is especially unique, because it is a case of cerebral tumor which grew towards and into the tractus opticus from the gyrus hippocampi and uncus. We know very little as to the function of the gyrus hippocampi. It has been generally accepted that in it, and, more particularly, in the uncus the olfactory center is located. A very short time ago W. Siebert[2] reported an analogous case of a tumor of the uncus which grew into the optical tract. Aside from hallucinations of smell this case showed homonymous hemianopsia of both eyes,[3] while our case showed a *monocular* hemianopsia, besides hallucinations of smell and the hemianopsic pupillary reaction of Wernicke.

The patient is a druggist, 54 years of age, from a healthy family. He has never had lues, never suffered an injury, and

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[1] Möbius alone ("Allg. Diagnostik der Nervenkrankh.") constructs such a case theoretically, and says: According to the situation of the focal affection sometimes the whole, sometimes parts for each eye, sometimes the greater part or the whole of the half of the visual field of ONE eye must be wanting. Ole Bull, too ("Ueber Perimetrie") relates cases of scotomata in ONE eye due to cerebral disease.

[2] "Monatschr. für Psych. und Neurologie," IV., 2, 1899.

[3] It is to be deplored that the clinical observation of this case is imperfect, as there is nothing stated as to hemianopsic pupillary reaction.

has always been moderate in baccho. Late in February he has his family physician, Dr. T. Reuter, called (to whom I am indebted for the history of the case), because of repeated sudden attacks of loss of consciousness. These attacks last but a few minutes.[4] When recovering the patient feels well, but feels a slight formication in the hands. From fifteen to twenty such attacks occurred in March. There were no attacks in April. Patient felt much better; went to a hydrotherapeutic institution, and returned to Dr. Reuter's treatment on May 15th, who called me into consultation on account of a right abducens paresis which had suddenly appeared.

The following was the result of my examination on May 18th: The patient whom I had formerly known as an intelligent and mentally normal man and whom I had seen assiduously working in his drug-store at the beginning of the year, answers dilatorily. His memory is defective. He can not remember whether he has seen as well formerly as now. His wife accompanies him because she does not trust him and he can not well find his way in the street and has a constant inclination to go to the right. Otherwise, his speech, walk, and hearing are normal. He answers slowly but correctly. The sense of smell is totally gone, as he says, for several years from sharp gases in his laboratory. The mucous membrane of the pharynx is chronically inflamed.

Conditions of the eyes: Right abducens paresis. Diplopia can not be demonstrated. The pupils react normally. In either eye the central visual acuity is reduced, the cause being unknown, but probably central. Vision, R. E., $^5/_X$; L. E., $^5/_X$; slight As. Both visual fields are normal. Color-sense good. Ophthalmoscopically: Optic papillæ somewhat pale but within the limits of the norm, vessels and fundus normal. Urine and patellary reflex normal.

June 8th: The condition is the same, excepting the abducens paresis which is much more pronounced. Diplopia can now be demonstrated and is homonymous.

June 11th: He has severe headache. He can not leave the

[4] In Seibert's case, too, which, strange to say, also concerned a druggist, the beginning of the affection was apoplectiform.

room, prefers to remain in bed without moving the head. The slightest movement of the head causes severe headache, especially at the vortex. Pulse is slow, 52 to 56 beats, as is found on June 21st.

June 17th: When examining the visual fields which until then had always been normal, I find monocular blindness in the right temporal half for white and colors. The point of fixation is intact. The limiting line passes very close to it, however, in a perfectly vertical direction. The visual field of the left eye is normal. The visual acuity of either eye is unchanged. Ophthalmoscopically, nothing new.

When, in the dark room and with the left eye tied shut, a light is held before the temporal side of the eye, the pupil does not contract. If the light is moved in an arc from the temporal to the nasal side, the pupil contracts at once when the light passes the median line (Wernicke's hemianopsic pupil reaction).[5] The left pupil reacts normally.

The tongue, when stretched forth, deviates to the right. Hearing normal.

July 1st: Finally choked discs make their appearance and thus the previously probable diagnosis of cerebral tumor is confirmed.

Transitory albuminuria is noticed once, then disappears.

The frequency of the pulse-beats now varies, sometimes it is 120, sometimes as low as 60. On both sides periodical jerks in the lower and upper extremities are observed, but more on the right side, especially in the flexors. On the left side paræsthesiæ of the trigeminus nerve, particularly its second branch, appear. He insists upon it that etherial oils have been rubbed on the left half of his face. Now and then he has hallucinations of smell. Although his smell has been lost altogether, the patient suddenly complains of bad odors in the room, which nobody else can observe.

The choked discs increase rapidly, and on July 4th con-

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[5] This symptom is so marked, and was also found to be so by Drs. Reuter and Ziehl, that it is astonishing that eminent authors, as for instance Oppenheim, consider it a questionable symptom. Oppenheim says ("Lehrb. d. Nervenkrh."): "In practice I have hardly ever succeeded in undoubtedly demonstrating the hemianopsic pupil, while other authors pretend to have observed this sign repeatedly."

siderable striped hæmorrhages are found in the neighborhood of the papilla. Even then the visual field still shows the defect of the temporal half. The left field is peripherically reduced.

The sensorium grew daily more obscured. Finally swallowing became difficult.

Death occurred on July 11th, four and a half months after the beginning of the disease, eleven days after the appearance of the choked disc.

The post-mortem was made thirty hours after death by the assistant physician of the insane asylum, Dr. Kufs.

Calvarium sclerosed, dura not thickened, very tense, can not be lifted in folds. Veins gorged. After removal of the dura the convolutions are found flattened. Vessels of the pia gorged, pia transparent. The blood-vessels show normal walls. When the brain is severed from the cerebral nerves the right abducens is found to be as thin as a thread and is torn. The cerebellum adheres to the dura at a point the size of a pin's head (metastatic tumor on the inner surface of the dura).

On the base, the left gyrus hippocampi and the uncus are found thickened and swollen, enlarged in all dimensions. They feel hard to the finger. Upon the chiasm, nearly centrally, slightly to the right, is located a small nodule of the size of a lentil. Except the thread-like abducens nerve, the cerebral nerves appear normal. On the convexity, a red discoloration of the first right occipital convolution and the adjacent sulci is found.

On the cut surface the brain is very hyperæmic and moist. The usual cuts are made and the cortex and marrow as well as the ventricles and the cerebellum are found normal. Only in the right occipital lobe in the region of the first convolution, as just mentioned, the red discoloration of the cortex reaches farther into the depth through the whole cortex. The marrow is intact. There are some finest recent punctiform hæmorrhages, produced by stasis in the last two hours before death, and which can have caused no symptoms. As later on shown by microscopical examinations, the blood-cells were normal. No other foci were found. Especially the cortical part of the visual center, the fissura

calcarina, cuneus, præcuneus, and lower occipital convolutions, is intact.

The brain was hardened in formol. After the hardening it was found that portions of the tumor lie between uncus and optic tract. The little nodule, mentioned above, which was pressed into the chiasm from below, is adherent to the dura mater. When the latter is lifted the little tumor is raised with it and is seen to have been pressed like a peg into the softened tissue of the chiasm, since a funnel-shaped depression, so to say, the negative of the tumor, is found there.

The frontal sections made through the brain at 5 mm. intervals show that the left optic tract is three times the normal size on account of the tumor which it harbors, especially in its outer and lower half. Its intact inner and upper part, which must have still permitted of conduction, by the pressure exerted by the tumor, appears ribbon-shaped. The gyrus hippocampi, lying outward from the tractus, is replaced by tumor-tissue, the center of which has a greenish glassy appearance with yellowish, evidently necrotic, and grayish gelatinous portions in the periphery. Backwards, the tumor reaches to the frontal section lying in front of the pons.

Laterally, the whole of the nucleus amygdalæ is lost in the tumor. The inner capsule on section shows indistinctness in parts.

The lenticular nucleus has remained intact and only shows some œdema in its lower parts which lie close to the inner capsule and the claustrum.

Microscopical Examination.—When the hardened tumor was transferred to alcohol from the formol a regularly arranged grayish gelatinous tissue was macroscopically seen to surround the larger blood-vessels like tubes. The microscopical examination confirmed this intimate relation between the tumor and the blood-vessels. We have really to deal with an angio-sarcoma with enclosures of larger portions, poor in cells or perfectly homonymous and hyaline. Larger and smaller round and oval blood-vessel lumina are surrounded by a thick sheath of round cells, with a large nucleus and indistinct protoplasma, in many layers and arranged like tubes. The tumor-nodules either touch each

other or are separated one from another by portions poorer in nuclei consisting of almost spindle-shaped cells. Even in the necrotic parts this typical arrangement around the blood-vessels can still be well discerned. In some places there are, besides the angio-sarcomatous nodules in the neighboring brain substance, sarcomatous giant-cells and cells with a greenish-yellow granular pigment. There were metastatic nodules near and somewhat more remote from the primary tumor. Staining, according to Weigert-Walters, showed no degenerative changes.

In order to study the degree of nerve degeneration, staining according to Marchi was resorted to. This method gave astonishing results and a clear picture of the destroyed bundles. In transverse sections of the right optic nerve just in front of the chiasm the inner portion is stained black. In transverse sections of the chiasm it is seen that the same bundle which higher up is destroyed by the tumor in the tractus has previously been injured by the peg-like tumor of the chiasm. On comparison with Henschen's schematic transverse sections it is found that the right crossed (dorsal and ventral) bundle must have been injured, while the uncrossed bundles and the macular bundle remained intact.

A microscopical section through the left tractus stained according to Marchi is very interesting. It is plain that the tumor has grown into the tractus from below and of necessity has destroyed the adjoining crossed ventral and dorsal bundles. The crossed macular bundle has also suffered. As the last remnants of destroyed fibres black myeline bodies are found within the transparent tumor substance. In the intact half of the tractus, which in transverse sections appears simi-lunar, the black degenerative changes of myeline are visible only at the line between the tumor and the fibre-bundles. As macroscopically seen, the left tractus is about three times the size of the right one. The tumor, so to speak, has pushed the fibre-bundles apart. It is, therefore, no longer possible to see how much of the macular bundle has been destroyed. According to the examination during life just one-half of it must have been destroyed, and the microscopical conditions agree pretty well with this.

The remaining semi-lunar portion was still conducting,

because the left visual field was normal. A more careful study of the pia discloses small aggregations of round cells in the adventitia of its blood-vessels in the neighborhood of the tumor and in some localities at the base and the pons. In some places metastatic nodules can be recognized, especially at the root of the left trigeminus.

The tractus olfactorii, stained according to Marchi, appear black in transverse sections.

Epicrisis.

In the first place this case is of diagnostic interest. It proves that in the presence of Wernicke's symptom we may conclude that the optical tract between the chiasm and the external corpus geniculatum is injured. This symptom is easily seen and in order to demonstrate it no such extensive instrumentarium is necessary, as has recently been recommended by Fragstein and Kemper,[6] while it can not be denied that with the pupil tester devised by these gentlemen the reaction is still easier of demonstration.

The same authors have collected the cases in which thus far the hemianopsic pupil reaction has undoubtedly been observed. They relate nine cases, so small a number, that they are probably correct in assuming that in many cases it has not been recognized. In all of the cases Henschen's theses were confirmed, which state that even large foci in the occipital optical tract or in the cortex in general do not produce a hemianopsic reaction; that, however, an indistinct or imperfect reaction may result "when a tumor has reached the immediate neighborhood of the frontal optical tract." The hemianopsic reaction is regularly found with lesions of the tractus even if they are very small. It does not appear with the destruction of the external corpus geniculatum, the pulvinar and the posterior corpora quadrigemina.

2. The jerking of the extremities may be explained as distant effects, perhaps, through compression of the cortex. The early participation of the right abducens nerve is not astonishing, since monolateral paralysis of this nerve is a very early symptom of brain tumors, because when the cerebral pressure is increased in any locality this nerve is pressed

[6] "Klin. Monatsbl. f. Augenh.," July, 1899.

against the basis cranii (cf. Bruns, Tumors of the nervous system). In a similar manner the paralysis of the hypoglossus nerve may be explained, while that of the left trigeminus may best be explained by direct pressure from the tumor and the small metastases in its neighborhood.

3. For years the patient suffered from anosmia from chronic nasal catarrh. As hallucinations of smell appeared suddenly during the growth of the intra-cranial tumor, these can only be laid to cerebral irritation. Since the left gyrus hippocampi was *in toto* involved and destroyed, we may assume that these hallucinations of smell were brought about by an irritation of the uncus consequent upon the growing of the tumor.

4. The blind half of the visual field of the right eye had a sharp vertical limiting line, immediately past the point of fixation. When the macular bundle is intact this outline usually goes around the point of fixation at a distance of from 10 to 15 degrees. Therefore the macular bundle in part must have shared in the lesion. This condition may in future prove of value for the diagnosis.

According to Monakow (Gehirnpathologie) the point of acutest vision, and with it the macular bundle, is in relation with the whole of the cortical part of the visual sphere. This is the only way in which we can understand why, wherever the focus may be situated, the larger part of the macula remains intact and may retain a fairly normal function.

In support of this view Monakow stated that not a single case of islet-like localization of the macula in the cerebrum has ever been observed.

If, then, in our case, a part of the macular visual field was destroyed (namely, its inner half in the right eye), this proves that the macular bundle must have been destroyed in some place behind the chiasm together with the uncrossed bundle of the right eye, which means in the left tractus opticus. We can, therefore, assume that hemianopsia with partial or total obliteration of the macular visual field proves an interruption in the primary optical tract.

Inversely, of course, this statement is not true, that is, the intactness of the macular bundles is no proof of a disease

in the secondary, nor even of the absence of such in the primary tract. In view of the difficulty in localizing brain tumors and the importance of a correct diagnosis for a possible operative procedure, this thesis is a valuable one and may in conjunction with Wernicke's symptom in future serve to determine with more accuracy, than could hitherto be done, in what place the optical tract is interrupted.

In conclusion, I wish to express my warmest thanks to Dr. Reuter for his kind help in this work, to Dr. Kufs for the anatomical and microscopical examination, and to the neurologist, Dr. Facklam, for the collection of the literature on the subject.

BOOK REVIEWS.

LETTER- WORD- AND MIND-BLINDNESS. By JAMES HINSHELWOOD, M.A., M.D., F.F.P.S., Glas. [H. K. Lewis, 136 Gower Street, W. C., London. 1900. Price, 3 shillings.]

In this little book the author has collected some of his lectures on the subject previously published in *The Lancet*. The book gives a very clear insight into the varied forms of diseases of the visual memory, illustrated by cases from the author's practice and literature. Small as it is, it contains a very complete information on all that is known to-day concerning these interesting affections, and it will, therefore, on occasion, prove to be a great help to diagnosis.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. Being a Yearly Digest of Scientific Progress, Etc. Under the general editorial charge of GEORGE M. GOULD, M.D. [W. B. Saunders, 925 Walnut Street, Philadelphia. 1900. Two Volumes. Price, $3.00 per volume.]

The Year-Book is by this time a well-known and well-liked caller. It is compiled by a number of men, each recognized in his special branch. Like all such books, it has one defect, in that the personal inclinations influence the judgment of what is most valuable to the readers and the profession at large. This, however, is a failing in which most human efforts share. The excellent part on ophthalmology is by H. F. Hansell, M.D., and W. Reber, M.D. ALT.

ABSTRACTS FROM MEDICAL LITERATURE.

By W. A. SHOEMAKER, M.D.,

ST. LOUIS, MO.

OPERATING IN HIGH DEGREES OF MYOPIA.

Chas. Stedman Bull, in a paper read before the New York State Medical Society, October, 1899, said that myopia was fast becoming a public scourge, and that in the near future there would have to be a new standard of requirements for entrance to our public schools. The speaker strongly urged the necessity for an earlier and more careful examination of the eyes of school children, and a stricter investigation into the whole subject of the hygiene of the school-room. This should include attention to the height of desks for children of a certain stature, the best methods of lighting and ventilation, the proper length of recesses, and the frequency of intermissions.

In regard to the operative treatment of high degrees of myopia, Dr. Bull indorsed Dr. Knapp's attitude, viz.: "The real value of this treatment of myopia would be recognized when the period of its boom had passed." The ideal effect would be a post-operative myopia of only 2 D., in which no glasses would be needed for near work. The writer stated that his own experience with this treatment had been extremely limited and hence his conclusions were largely theoretical. The age and occupation, and the necessary demands on the eyes should be considered. A careful ophthalmoscopic examination of the fundus should be made under atropine mydriasis, with special reference to the state of the blood-vessels of the retina and choroid, especially in the equatorial region. The visual field and tension should be carefully tested and if there was minus tension there would be ground for suspicion of serious disease of the fundus. The possible dangers are: (1) Intra-ocular hæmorrhage from the choroidal or retinal vessels; (2) detachment of retina with or

without hæmorrhage; (3) secondary glaucomatous symptoms, resulting from the swelling of the lens after lacerating its capsule; (4) infection of corneal wound, or iris, or both. The third danger need give no uneasiness as the symptoms would speedily subside. The danger of infection was now exceedingly slight.

The contraindications were: (1) Extensive degenerative changes in the retina and choroid in the region of the macula; (2) detachment of the retina already existing; (3) opacities in the vitreous indicating more or less extensive disease of the choroid and blood-vessels; (4) previous loss of one eye from whatever cause; (5) decided loss of transparency of cornea; (6) any form of contagious conjunctivitis, specially trachoma; (8) advanced age of the patient; (8) myopia of less than 12 D.

The indications for the operation were: (1) The degree of visual acuity actually existing at the time, if not sufficient for the social needs of the patient, the operation was indicated first on one eye and then on the other if there were no contraindications. (2) If there was unmistakable evidence of rapid increase of near-sightedness, and if the myopia amounted to 12 D. or more. The author said that the vision of all myopes was undoubtedly improved bp the operations and continued to increase for six months afterward.

In conclusion, the author laid special stress on the fact that the operation should not be done, under any circumstances, if there were present any degenerative changes in the retina or choroid in the region of the macula, for, in such cases the operation would inevitably lead to retinal hæmorrhage and to destruction of the eye. The younger the patient the better the result.

A. von Hippel, at the Ninth International Ophthalmological Congress, reports his experiences for the last six years in operating for myopia. Within this period he has operated on 188 eyes; all but four have remained under observation for a considerable time. He has had detachment of the retina in ten cases (5.4 per cent.), this occurring in three cases after three or four years, in six cases after one year, and in one case after eight months. Among 1,747 higher myopic eyes, 117, or 6.7 per cent., had spontaneous detachment without

operation. This favorable relation changes when the patients are divided according to their ages, since for those under 30 the percentage of losses is less favorable to the operation, while for those over 30 it is more favorable. The operation does not offer a safeguard against detachment or central choroiditis. The permanent acuteness of vision was reached about one year after the operation.

Schmidt-Rimpler (*Therapie der Gegenwart.*, I., 4) discusses the advantages and disadvantages of the myopia operation. He considers the operation an important advance in the therapy of myopia, but it is to be employed only under restricted condition and with the necessary precautions. The operation does not check the pathological changes in the eye due to the myopia, it is not without danger, and its only purpose is to improve distant vision in selected cases.

Szili and Mohr oppose the practice of operating on both eyes in myopia, since we have not yet sufficient experience as to the final outcome. It is to be remembered, further, that after the operation near vision with the correcting glass is never so good as it was before the operation. Thus the patient has the disadvantage of poorer near vision to overbalance the advantage of better distant vision.

A CASE OF PNEUMONIA WITH EYE COMPLICATIONS.

Fraenkel (*Graefe's Archiv*, XLVIII., 2, p. 450) reports a case of pneumonia in a man 34 years of age, who, early in the course of the disease, noticed a blurring in the sight of both eyes, the entire field being obscured except the central portion. Fraenkel found five or six round white patches, a third of a disc diameter in width, scattered about the macula. Tuberculosis was suspected at first, but the fundus became normal again in the course of six weeks. The condition was similar to one described by Axenfeld, who regarded it as being due to the deposition of pneumococci in the retina.

LACHRYMAL STRICTURE.

H. D. Noyes (*New York Eye and Ear Infirmary Reports*, January, 1899) strongly recommends the use of the style for many cases of lachrymal stricture. He prefers one made of pure silver, usually not larger than the No. 6 Bowman probe

and having the upper end bent so as to be on the side of the nose close to the canula. It should be worn from four to twelve weeks, according to the character of the stricture. After this, mild irrigation of the passages with the aid of a dental syringe completes the cure; but a large probe may be introduced once in two weeks until it is evident that all tendency to relapse has disappeared.

NEW TEST-TYPE FOR THE DETERMINATION OF THE ACUTENESS OF VISION.

E. Landolt (*British Medical Journal*, September 23, 1899) describes his new test-types and gives his reasons for thinking them superior to the Snellen type. They consist of black circles on a white ground, presenting in some direction a gap, which, for the unit of the vision, corresponds to an angle of one minute. In order not to render it too dissimilar to those usually employed, he has given to the circles the same thickness as the corresponding letters in Snellen's types. But the black in his types is constant, while that of the letters varies. With the letters, each group ought to contain many tests, because of the difference of visibility of the letters and because they are easily learned by heart. With his system, one sign is sufficient; we have only to vary the direction of the card to change, at the same time, all the tests. The card is square, not rectangular, as are those generally in use; this shape allows a more uniform illumination in case a reflector is used. The greatest advantage which the writer claims for these test-types is that they realize much better than letters the principle of the acuteness of vision, that they exclude as much as possible intellectual functions (the patient indicating the position of the gap by a simple movement of the hand), and being themselves uniform and the same for the illiterate as for the educated of all nations, they represent a true unit—the essential and fundamental condition for every measure and examination. They can be procured from M. O. Doin, publisher, Paris, France.

EXOPHTHALMIC GOITRE.

Edward Boinet (*Révue de Médicine*, December, 1899) says the complex pathogenesis of this disease and that of

diabetes offer many resemblances. Just as the over activity of the liver in diabetes proceeds from the central nervous system, so are the hypersecretion of the thyroid gland and the dilatation of its vessels, of the base of the neck, and the retro-ocular tissue usually dependent upon an initial stimulation of the Basedowian centers. Later a secondary thyroid intoxication may occasion a series of Basedow symptoms of toxic origin and even react on the nerve centers.

JEQUIRITY IN THE TREATMENT OF TRACHOMA.

R. H. T. Mann (*New York Medical Record*, December 30, 1899) thinks that in cases of trachoma, with pannus of long-standing, jequirity will cure when all other methods fail. Ten beans are finely pulverized and placed in a bottle containing one-half ounce of water. This solution is allowed to stand for twenty-four hours. A few drops of the solution are instilled into each eye once daily until a false membrane appears, which in most cases will be after the third instillation. Within two hours after each instillation pain sets in and remains severe for six hours. This treatment is followed by the daily application of a 2 per cent. solution of nitrate of silver which is kept up until the eyes are well; this will usually be in from two to six months. The writer has never seen any bad results following this treatment, but recommends its being used only in one eye at a time.

NON-OPERATIVE TREATMENT OF STRABISMUS; ITS POSSIBILITIES.

A. Edward Davis, in a paper read before the Medical Society of the State of New York (*New York Medical Record*, February 3, 1900), made the following points:

1. Hypermetropia and hypermetropic astigmatism are the causes of convergent strabismus in the majority of cases.

2. Contributory causes are (*a*) difference in the acuity of vision, either congenital or acquired, but usually the latter, due to an unequal state of refraction, and (*b*) anything that interferes with the acuity of vision, such as opacities on the cornea, in the vitreous, or lens.

3. Faulty structure, insertion, or innervation of the extrinsic muscles of the eye may cause convergent strabismus.

4. The amblyopia present in most cases he believes to be functional and acquired; rarely congenital.

5. The non-operative treatment (the use of atropine, the exclusion pad, and in patients, old enough, glasses and the use of the stereoscope) shouid be begun as soon as the squint is observed. Just as soon as the non-operative treatment ceases to improve the condition of the squint, it is time to operate. Delay in operating after this time is not only useless, but harmful, because the habit of suppressing the image in the squinting eye becomes fixed and the amblyopia is made worse. After the eyes have been operated on, the use of the stereoscope, bar-reading, the pad, and glasses, are of the utmost value in completing the treatment by maintaining parallelism and establishing binocular vision. The rational treatment of convergent strabismus means its early treatment.

THE MYDRIATIC ACTION AND VALUE OF EUPHTHALMINE.

Euphthalmine hydrochlorate is a synthetic product, very soluble in cold water, and was brought to the notice of ophthalmologists in 1897 by B. Treutler. It is used in solutions of from 1 to 10 per cent, and the claims made for it are:

1. Rapid dilatation of the pupil.
2. Duration of dilatation is short compared with other mydriatics.
3. Paralysis of accommodation slight.
4. Does not menace intraocular pressure.
5. No effect on the corneal epithelium.
6. Does not produce any local irritation.
7. Produces no systemic effect.

Herman Knapp (*Archives of Ophthalmology*, May, 1899) after using it for nine months concludes that, as an aid to ophthalmoscopic examinations it is without a rival.

He finds that one instillation of a 10 per cent. solution dilates the pupil sufficiently for ophthalmoscopic purposes in from fifteen to twenty minutes, and that the maximum dilatation was produced in most patients in from thirty to forty minutes. The writer, in two cases, received the impression that euphthalmine, like atropine, had a tendency to increase the tension of the eyeball.

Edward Jackson (*Ophthalmic Record*, July, 1899) uses 4 per cent. solution and finds the pupil beginning to dilate in fifteen minutes, and to reach its maximum in about an hour. By the end of the second hour the pupil begins to contract, and recovery is complete in about twenty-four hours. He found that with a 5 per cent. solution about one-fourth of the total accommodation is lost at the time of maximum effect, and with a 1 per cent. solution, about one-twelfth. This is three or four times as much impairment of accommodation as is produced by solutions of cocaine of equal strength.

Winselman (*Klinische Monatsblätter für Augenheilkunde*, July, 1898) sums up his experience with euphthalmine as follows:

1. The pupillary dilatation begins in about the same time as with the ordinary mydratics.
2. Accommodation is so little influenced that the effect is practically of no importance.
3. There is no change in the intraocular pressure.
4. No toxic symptoms have yet occurred from its use.
5. It does not irritate either the conjunctiva or the cornea.
6. The mydriasis disappears rapidly.

AN UNUSUAL CASE OF EMBOLISM.

H. W. Thomson (*The Lancet*, January 6, 1900) reports a case in which an embolus was arrested in the common macular or cilio-retinal artery The occlusion lasted eight days, during which time the nutrition of the part of the retina involved was maintained by the arteria centralis retinæ through its small branches.

A CASE OF MEMBRANOUS CONJUNCTIVITIS TREATED WITH ANTI-DIPHTHERITIC SERUM.

A. D. McQueen (*British Medical Journal*, December, 1899) reports a case in which bacteriological examination of the membrane detached from the eye showed diphtheria bacilli. The case was treated as one of true diphtheria with the result of prompt recovery.

MEDICAL SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, December 14, 1899.

A. Quarry Silcock, F.R.C.S., in the Chair.

Clinical Evening.

Congenital Subluxation of the Lens.

Mr. George Keeling showed a case of subluxation of the lens with secondary luxation forward.

When first seen six years ago both lenses were dislocated. In July last the patient was again seen, and then the left lens was found to be in the anterior chamber. Mr. Keeling attempted to pass a needle into it, but owing to the toughness of the capsule, this failed. He subsequently extracted it, and with correction of +12 and +16 she now had vision of $^{6}/_{IX}$ and J1 in spite of the fact that before the extraction she was highly myopic, as she still is in the other eye.

Remarks were made by Mr. Holmes Spicer and the Chairman.

Sympathetic Ophthalmitis.

Dr. Cecil Shaw brought forward a case of sympathetic ophthalmitis commencing 40 days after enucleation of the injured eye.

The patient was a healthy girl, 19 years of age, who was wounded in the left eye by a pair of scissors which were thrown at her on May 24, 1899. She was not seen by Dr. Shaw until June 20th. There was a wound at the upper corneal margin with the iris entangled. The eye was injected, painful and blind, with minus tension. On June 28th the eye was removed entire. This specimen with the sections was shown. The patient did perfectly well until August 14th,

when the eye became suddenly painful and injected. She was seen a week later suffering from severe irido-cyclitis and considerable failure of vision. In spite of all treatment the eye went from bad to worse, the pupil filled with lymph, and the vision was now L. P. only.

Dr. Shaw proposed to try discission at a later period as recommended by the late Mr. Critchett.

Mr. Treacher Collins suggested that perhaps the second eye became affected independently of the first. He had under his care a man whose eye was removed for an injury in April last and who came back 8 months later with the other eye inflamed and which under other conditions would certainly have been termed sympathetic.

Mr. Devereux Marshall thought that one of the most unusual features of the case was the severity of the disease, and he mentioned a case which had come under his observation in which sympathetic mischief had commenced about two weeks after the removal of an eye for injury. The disease was very mild and the eye quite recovered, and he thought that this was the common experience in such cases.

Dr. Shaw, in reply to a question by Mr. Doyne, said that the choroid had not been examined microscopically.

Sarcoma of the Conjunctival Sac.

Mr. John Griffith showed a case of sarcoma of the upper conjunctival cul-de-sac.

The patient was a woman, 45 years of age. The tumor was first noticed in December, 1898, though there had been brown pigmentations of the ocular conjunctiva for eighteen months previously. The growth was freely excised, but a recurrence had recently appeared. Microscopically the growth was seen to be a mixed-celled sarcoma.

Mr. Griffith wished to know the opinion of the members as to treatment—whether it would be sufficient to remove the recurrence or whether it would be better to remove the whole contents of the orbit.

Mr. Devereux Marshall looked upon the pigmentation of the conjunctiva as indicating disease, and from his experience of one case he had seen, he strongly advised the more radical operation, as he thought that anything short

of this would not ensure the removal of the whole of the disease.

Sarcoma of the Choroid.

Mr. John Griffith also showed the macroscropic and microscopic specimens of Mr. Work Dodd's case of retinal detachment, which was shown as a clinical case at the last meeting of the Society. It turned out to be a sarcoma.

Embolism of the Central Artery of the Retina.

Mr. A. H. Thompson exhibited a case of embolism of the central artery of the retina in an anæmic girl, 16 years of age. She had acute rheumatism two years ago, which followed scarlet fever. The points of interest lay in the fact that the papillo-macular triangle had escaped, and also that there was some pulsation of the central artery.

Nasal Duct Dilator.

Mr. G. D. Maynard showed a nasal duct dilator, which differed from the ordinary probe in the fact that it could be passed and then dilated when in the duct.

Effect of Injury on the Macular Area.

Mr. G. Brooksbank James exhibited a case showing changes in the macular area consequent upon injury.

The patient received a blow on the eye three years ago with a tennis ball. Since the accident the vision has been defective. Several white spots were seen about the macula and an area of pigmentation below the disc.

Mr. Adams Frost and Mr. Hartridge had both seen similar cases, and these were caused by injury such as in the present case.

Injuries to Eyes from Explosion of Glass Bottle.

Mr. G. D. Maynard and the Chairman showed a patient who had both eyes wounded by the explosion of a glass bottle. The right eye had an extensive wound of the sclerotic on the inner side from which vitreous was escaping. The left eye had a wound through the corneo-scleral junction with iris and ciliary body prolapsed. Mr. Silcock sutured the

sclera with fine silk, endeavoring not to penetrate the entire thickness of the sclera. The patient recovered vision of $^{6}/_{XII}$ in the right eye and $^{6}/_{VI}$ in the left.

Diphtheritic Ophthamia.

Mr. Silcock and Mr. Manard also read notes of a case of long persistence of membrane on the conjunctiva after diphtheretic ophthalmia.

The patient, a child, had been under the care of Dr. Mence, of St. Ives, Hunts. The eye was destroyed, and had subsequently been removed, and in spite of this, the membrane still persisted after several months of treatment and contained an attenuated form of diphtheria bacillus.

Mr. W. T. Lister asked if antitoxin had been used, and in reply the Chairman stated that it had not been.

Growth on Eyelid.

Mr. Vernon Cargill showed a patient with a growth on the right upper lid occuring in the site of an old scar, where a Meibomian tumor had been removed six years previously.

About three months ago the eye became irritable, and on the inner surface of the upper lid a cauliflower-like growth with a broad base made its appearance. There were no enlarged glands. A portion was removed for microscopic examination.

Clinically, it was thought to be an epithelioma, and Mr. Griffith, who had seen the sections, was also of that opinion.

Other Cases.

Dr. Brailey and Mr. Osmond showed a case of Vascularity of the Lens Capsule, probably Congenital. There was also a congenital cataract and a persistent pupillary membrane. Mr. Stanford Morton had a case showing Changes in the Macular Region, which in his absence was shown by Mr. G. W. Thompson.—*British Medical Journal.*

THE WESTERN OPHTMALMOLOGICAL AND OTO-LARYNGOLOGICAL ASSOCIATION.

PRELIMININARY PROGRAM FOR THE FIFTH ANNUAL MEETING.

The fifth annual meeting of this Association will be held in the Planters Hotel, St. Louis, Mo., April 5–7, 1900. The following papers have thus far been announced:

Thos. F. Rumbold, St. Louis, Mo.: "The Function of the Ossicula Auditus."

M. A. Goldstein, St. Louis, Mo.: "The Tampon in Nasal Surgery." Also presentation of cases.

Adolf Alt, St. Louis, Mo.: "Studies Concerning the Anatomy of the Eyelids, Especially Their Glands."

Joseph Mullen, Houston, Texas: "Use of Mercurol as a Valuable Non-Irritating Antiseptic in Intra- and Extra-Ocular Suppurative Processes."

A. E. Prince, Springfield, Ill.: "The Treatment of Intumescent Rhinitis."

John J. Kyle, Indianapolis, Ind.: "Sympathetic Inflammation and Sympathetic Irritation of the Eye."

E. C. Ellett, Memphis, Tenn.: "Some Notes on the Use of Homatropine as a Cycloplegic."

Geo. Knapp, Vincennes, Ind.: "Nasal and Naso-Pharyngeal Operations."

W. Scheppegrell, New Orleans, La.: "Tuberculosis of the Nose."

J. W. Bullard, Pawnee City, Neb.: "Two Classes of Eye Cases That Give Me a Great Deal of Trouble."

Geo. F. Keipper, LaFayette, Ind.: "The History of the Mastoid Operation."

Wm. Porter, St. Louis, Mo.: (Subject not given.)

J. O. Stillson, Indianapolis, Ind.: "Removal of Middle Turbinate for the Cure of Some Forms of Inveterate Eye Disease."

F. C. Ewing, St. Louis, Mo.: "Recurring Parotitis in a Healthy Child."

H. W. Loeb, St. Louis, Mo.: 1. Presentation of Case: "Laryngeal Papillomata of Four Years' Standing." 2. Presentation of Specimen: "One Hundred and Seven Polypi Removed at One Sitting."